



Recent trends in Tuscany (Italy) summer temperature and indices of extremes

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Abstract:

In the past few decades, many studies showed a significant worldwide warming, and consequently, changes in frequency and persistence of extreme high-temperature events were observed. In order to analyse summer Tuscany (Italy) patterns of climate change during the period 1955-2004, indices of temperature and of extreme events were investigated for evidence of trend and change in inter-annual variability by using data of 40 weather stations. Least square regression analysis and Theil-Sen nonparametric regression were applied for evidence of trends. The Mann-Kendall test was applied to each time series to look for statistically significant trends. The results showed a general increase in minimum and maximum temperatures and extreme temperature events. Maximum temperature increase (+0.44 degrees C/decade) was slightly greater than minimum temperature (+0.38 degrees C/decade) and consequently, an increase in summer daily temperature range (DTR) was noted (+0.06 degrees C/decade). Inter-annual summer climate variability showed an increasing trend in the whole region, especially in regard to extreme event occurrences while a small decreasing trend concerning diurnal temperature range was observed. Copyright (c) 2008 Royal Meteorological Society

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat, Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Climate Change and Human Health Literature Portal

Non-United States: Europe

European Region/Country: European Country

Other European Country : Italy

Health Impact: 

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Resource Type: 

format or standard characteristic of resource

Research Article

Timescale: 

time period studied

Time Scale Unspecified